Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	22	(call near management near (center or centre)) and PBX	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:38
S2	13	(call near management near (center or centre)) and PBX and (cost or charge)	US-PGPUB; USPAT	OR	OFF	2004/04/29 16:28
S3	1	"6324276".pn.	US-PGPUB; USPAT	OR	OFF	2004/04/29 16:29
S4	5	call near account??? near services	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:41
S5	186	call near account??? and (office or(appartment near complex))	US-PGPUB; USPAT	OR	OFF	2004/04/29 16:32
S6	55	(call near account??? and (office or(appartment near complex))) and client and server	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S7 .	34	((call near account??? and (office or(appartment near complex))) and client and server) and (cost or price)	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S8	1	(((call near account??? and (office or(appartment near complex))) and client and server) and (cost or price)) and XML	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S9	827	protocol near converter	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:21
S10	4	(protocol near converter) and (call near account??? and (office or(appartment near complex)))	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S11	3	((protocol near converter) and (call near account??? and (office or(appartment near complex)))) and client and server	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S12	0	(((protocol near converter) and (call near account??? and (office or(appartment near complex)))) and client and server) and XML	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:23
S13	3	(((protocol near converter) and (call near account??? and (office or(appartment near complex)))) and client and server) and (cost or price)	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:24
S14	17	call near cost near information	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:39
S15	7	"4888822".URPN.	USPAT	OR	OFF	2004/04/29 17:48
S16	7	"4888822".URPN.	USPAT	OR	OFF	2004/04/29 17:48
S17	4492	serial near link	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:53

S18	4492	serial near1 link	US-PGPUB; USPAT	OR	OFF	2004/04/29 17:54
S19	21	(serial near1 link) and (call near account??? and (office or(appartment near complex)))	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:04
S20	1520	call near2 parameter	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:38
S21	4	(generat??? same (call near2 parameter)) and (serial near1 link)	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:05
S22	53	generat??? same (call near2 parameter)	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:24
S23	1	(generat??? same (call near2 parameter)) and Hotel	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:17
S24	29	(call near2 parameter) and Hotel	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:17
S25	52	(generat??? same (call near2 parameter)) not ((call near2	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:27
		parameter) and Hotel)				
S26	502	activate near call	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:27
S27	152	activate near call and (deactivate)	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:29
S28	0	(activate near call and (deactivate)) and ((modify or update) near charges)	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:28
S29	5	(account near information) and (activate near call and (deactivate))	US-PGPUB; USPAT	OR	OFF	2004/04/29 18:29
S30	4	call near account??? near services	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:37
S31	1	(call near management near (center or centre)) and PBX	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:38
S32	292	call near2 parameter	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:39
S33	0	(call near2 parameter) and deactivate	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:39
S34	3	(call near2 parameter) and Hotel	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:39
S35	3	call near cost near information	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:40
S36	. 4	call near account??? near services	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:41
S37	191	telephone same services same (Hotel or Office)	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:44
S38	3	(telephone same services same (Hotel or Office)) and parameter	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:43

S39	4	(telephone same services same (Hotel or Office)) and server and client	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:44
S40	103	telephone same services and client and server	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:45
S41	49	(telephone near6 services) and client and server	EPO; JPO; DERWENT	OR	OFF	2004/04/29 18:45
S42	1	"20020055879".pn.	US-PGPUB; USPAT	OR	OFF	2004/04/29 19:19
S43	105	("5333183").URPN.	USPAT	OR	OFF	2004/12/01 14:21
S44	49823	"379"/\$.ccls.	US-PGPUB; USPAT	ÖR	OFF	2004/12/01 14:21
S45	0	(CDR near prcoess\$) same server	US-PGPUB; USPAT	OR	OFF	2004/12/01 14:22
S46	9	(CDR near (process or processing or processed)) same server	US-PGPUB; USPAT	OR	OFF	2004/12/01 14:39
S47	0	(CDR near (process or processing or processed)) same server and (serial near link)	US-PGPUB; USPAT	OR	OFF	2004/12/01 14:40
S48	3	(CDR near15 (process or processing or processed)) same server and (serial near link)	US-PGPUB; USPAT	OR	OFF	2004/12/01 14:42
S49	3	(CDR near15 (process or processing or processed)) same server and (serial near link) and (bill or billing)	US-PGPUB; USPAT	OR	OFF	2004/12/01 16:37
S50	0	(CDR near15 (process or processing or processed)) same server and (serial near link) and (bill or billing)	EPO; JPO; DERWENT	OR.	OFF	2004/12/01 16:37
S51	3	(CDR near15 (process or processing or processed)) same server	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:44
S52	0	(Smith near Robert) and billing and (service near1 provider) and call and charges	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:45
S53	0	Smith and billing and (service near1 provider) and call and charges	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:45
S54	23	billing and (service near1 provider) and call and charges	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:46
S55	0	("Smith.In") and billing and (service near1 provider) and call and charges	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:46
S56 :	0	("Smith:In")	EPO; JPO; DERWENT	OR	OFF	2004/12/01 16:46
S57	0	Iridium and billing and (service near1 provider) and call and charges	EPO; JPO; DERWENT	OR	OFF	2004/12/01 17:06

S58	0	service near1 provider and billing and activation and charges and call and server	EPO; JPO; DERWENT	OR	OFF	2004/12/01 17:07
S59	0	(service near1 provider) and billing	EPO; JPO;	OR	OFF	2004/12/01 17:07
		and activation and charges and call and server	DERWENT			

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HILIGHT set on as ''
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 >>>1 of the specified files is not available
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                       0.100 DialUnits File410
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       $0.00 Estimated cost File410
       $0.06 TELNET
       $0.06 Estimated cost this search
       $0.06 Estimated total session cost
                                             0.315 DialUnits
  SYSTEM:OS - DIALOG OneSearch
   File 15:ABI/Inform(R) 1971-2004/Dec 01
           (c) 2004 ProQuest Info&Learning
        15: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling. See HELP ALERT.
          9:Business & Industry(R) Jul/1994-2004/Nov 30
           (c) 2004 The Gale Group
    File 810: Business Wire 1986-1999/Feb 28
           (c) 1999 Business Wire
   File 275: Gale Group Computer DB(TM) 1983-2004/Dec 01
           (c) 2004 The Gale Group
   File 476: Financial Times Fulltext 1982-2004/Dec 01
           (c) 2004 Financial Times Ltd
    File 610: Business Wire 1999-2004/Dec 01
           (c) 2004 Business Wire.
  *File 610: File 610 now contains data from 3/99 forward.
 Archive data (1986-2/99) is available in File 810.
    File 624:McGraw-Hill Publications 1985-2004/Dec 01
           (c) 2004 McGraw-Hill Co. Inc
  *File 624: Homeland Security & Defense and 9 Platt energy journals added
  Please see HELP NEWS624 for more
   File 636:Gale Group Newsletter DB(TM) 1987-2004/Dec 01
           (c) 2004 The Gale Group
   File 621: Gale Group New Prod. Annou. (R) 1985-2004/Dec 01
           (c) 2004 The Gale Group
    File 613:PR Newswire 1999-2004/Dec 01
           (c) 2004 PR Newswire Association Inc
  *File 613: File 613 now contains data from 5/99 forward.
 Archive data (1987-4/99) is available in File 813.
   File 813:PR Newswire 1987-1999/Apr 30
           (c) 1999 PR Newswire Association Inc
    File 16:Gale Group PROMT(R) 1990-2004/Dec 01
           (c) 2004 The Gale Group
  *File 16: Alert feature enhanced for multiple files, duplicate
  removal, customized scheduling. See HELP ALERT.
    File 160: Gale Group PROMT(R) 1972-1989
           (c) 1999 The Gale Group
    File 634:San Jose Mercury Jun 1985-2004/Nov 30
           (c) 2004 San Jose Mercury News
    File 148: Gale Group Trade & Industry DB 1976-2004/Nov 30
           (c) 2004 The Gale Group
  *File 148: Alert feature enhanced for multiple files, duplicate
  removal, customized scheduling. See HELP ALERT.
    File 20:Dialog Global Reporter 1997-2004/Dec 01
           (c) 2004 The Dialog Corp.
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File 35:Dissertation Abs Online 1861-2004/Nov

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(c) 2004 ProQuest Info&Learning
  File 583: Gale Group Globalbase (TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
*File 583: This file is no longer updating as of 12-13-2002.
  File 65:Inside Conferences 1993-2004/Nov W4
         (c) 2004 BLDSC all rts. reserv.
  File
         2:INSPEC 1969-2004/Nov W3
         (c) 2004 Institution of Electrical Engineers
        2: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.
  File 233: Internet & Personal Comp. Abs. 1981-2003/Sep
         (c) 2003 EBSCO Pub.
*File 233: File 233 is closed (no longer updating).
  File 474: New York Times Abs 1969-2004/Nov 30
         (c) 2004 The New York Times
  File 475: Wall Street Journal Abs 1973-2004/Nov 30
         (c) 2004 The New York Times
  File 99: Wilson Appl. Sci & Tech Abs 1983-2004/Oct
         (c) 2004 The HW Wilson Co.
  File 348: EUROPEAN PATENTS 1978-2004/Nov W03
         (c) 2004 European Patent Office
  File 349:PCT FULLTEXT 1979-2002/UB=20041125,UT=20041118
         (c) 2004 WIPO/Univentio
  File 347: JAPIO Nov 1976-2004/Jul (Updated 041102)
         (c) 2004 JPO & JAPIO
*File 347: JAPIO data problems with year 2000 records are now fixed.
Alerts have been run. See HELP NEWS 347 for details.
      Set Items Description
                 _____
? s ((call) (10n) (accounting or charg?))
Processing
Processed 10 of 27 files ...
<---->User Break---->
? s ((call) (10n) (accounting or charg?)) and (cdr) and (provider or carrier) and
(billing)
Processing
Processed 10 of 27 files ...
Processing
Processed 20 of 27 files ...
Completed processing all files
        7649272 CALL
         4470286 ACCOUNTING
         7172915 CHARG?
          155239 CALL(10N) (ACCOUNTING OR CHARG?)
           32488 CDR
         4338646 PROVIDER
         1903422 CARRIER
          538295 BILLING
      S1
             337
                  ((CALL) (10N) (ACCOUNTING OR CHARG?)) AND (CDR) AND
                  (PROVIDER OR CARRIER) AND (BILLING)
? s server and sl
         1883669
                 SERVER
             337
                  S1
      S2
             190
                 SERVER AND S1
? s s2 and cost
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190 S2
       10608878 COST
     S3 152 S2 AND COST
? s (activat????) and s3
        1092406 ACTIVAT????
            152 S3
           73 (ACTIVAT????) AND S3
     S4
? s (activat????) (5n) account
        1092406 ACTIVAT????
        3711052 ACCOUNT
          5051 (ACTIVAT????) (5N) ACCOUNT
? ds
Set
       Items
             Description
         337 ((CALL) (10N) (ACCOUNTING OR CHARG?)) AND (CDR) AND (PROVI-
S1
          DER OR CARRIER) AND (BILLING)
         190 SERVER AND S1
S2
s3
               S2 AND COST
         152
S4
         73
               (ACTIVAT????) AND S3
S5
        5051
               (ACTIVAT????) (5N) ACCOUNT
? s s5 and s2
           5051 S5
190 S2
12 S5 AND S2
     S6
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(Item 2 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00456834
            **Image available**
A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SWITCHED TELEPHONY
    COMMUNICATION
SYSTEME PROCEDE ET ARTICLE CONCU POUR LES COMMUNICATIONS TELEPHONIOUES PAR
    RESEAU COMMUTE
Patent Applicant/Assignee:
 MCI WORLDCOM INC,
Inventor(s):
  ZEY David A,
Patent and Priority Information (Country, Number, Date):
  Patent:
             WO 9847298 A2 19981022
                       WO 98US7927 19980415 (PCT/WO US9807927)
  Application:
  Priority Application: US 97835789 19970415; US 97834320 19970415
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
  IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
  PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW
  SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR
  IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 156638
? t s8/3/3-5
 8/3/3
          (Item 3 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00443927
A COMMUNICATION SYSTEM ARCHITECTURE
ARCHITECTURE D'UN SYSTEME DE COMMUNICATION
Patent Applicant/Assignee:
  MCI WORLDCOM INC,
  EASTEP Guido M,
  LITZENBERGER Paul R,
  OREBAUGH Shannon R,
  ELLIOTT Isaac K,
  STELLE Rick,
  SCHRAGE Bruce,
  BAXTER Craiq A,
  ATKINSON Wesley,
  KNOSTMAN Chuck,
  CHEN Bing,
  VANDERSLUIS Kristan,
Inventor(s):
  EASTEP Guido M,
  LITZENBERGER Paul R,
  OREBAUGH Shannon R,
  ELLIOTT Isaac K,
  STELLE Rick,
```

SCHRAGE Bruce,

```
BAXTER Craig A,
 ATKINSON Wesley,
 KNOSTMAN Chuck,
 CHEN Bing,
 VANDERSLUIS Kristan,
 JUN Fang DI,
Patent and Priority Information (Country, Number, Date):
                        WO 9834391 A2 19980806
 Application:
                        WO 98US1868 19980203 (PCT/WO US9801868)
 Priority Application: US 97794555 19970203; US 97794114 19970203; US
    97794689 19970203; US 97807130 19970210; US 97798208 19970210; US
    97795270 19970210; US 97797964 19970210; US 97800243 19970210; US
    97798350 19970210; US 97797445 19970210; US 97797360 19970210
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
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 GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX
 NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH
 GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI
 FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 156226
          (Item 4 from file: 349)
8/3/4
DIALOG(R) File 349: PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00432616
A COMMUNICATION SYSTEM ARCHITECTURE
SYSTEME, PROCEDE ET PRODUIT MANUFACTURE POUR L'ARCHITECTURE D'UN SYSTEME DE
   COMMUNICATION
Patent Applicant/Assignee:
 MCI COMMUNICATIONS CORPORATION,
 ELLIOTT Isaac K,
 STEELE Rick D,
 GALVIN Thomas J,
 LAFRENIERE Lawrence L,
 KRISHNASWAMY Sridhar,
 FORGY Glen A,
 REYNOLDS Tim E,
 SOLBRIG Erin M,
 CERF Vinton,
 GROSS Phil,
 DUGAN Andrew J,
 SIMS William A,
 HOLMES Allen,
 SMITH Robert S II,
 KELLY Patrick J III,
 GOTTLIEB Louis G,
 COLLIER Matthew T,
 WILLE Andrew N,
 RINDE Joseph,
 LITZENBERGER Paul D,
 TURNER Don A,
 WALTERS John J,
```

```
EASTEP Guido M;
 MARSHALL David D,
 PRICE Ricky A,
 SALEH Bilal A,
Inventor(s):
 ELLIOTT Isaac K,
 STEELE Rick D,
 GALVIN Thomas J,
 LAFRENIERE Lawrence L,
 KRISHNASWAMY Sridhar,
 FORGY Glen A,
 REYNOLDS Tim E,
 SOLBRIG Erin M,
 CERF Vinton,
 GROSS Phil,
 DUGAN Andrew J,
 SIMS William A,
 HOLMES Allen,
 SMITH Robert S II,
 KELLY Patrick J III,
 GOTTLIEB Louis G,
 COLLIER Matthew T,
 WILLE Andrew N,
 RINDE Joseph,
 LITZENBERGER Paul D,
 TURNER Don A,
 WALTERS John J,
 EASTEP Guido M,
 MARSHALL David D,
 PRICE Ricky A,
 SALEH Bilal A,
Patent and Priority Information (Country, Number, Date):
 Patent:
                        WO 9823080 A2 19980528
 Application:
                        WO 97US21174 19971114 (PCT/WO US9721174)
  Priority Application: US 96751203 19961118; US 96751668 19961118; US
   96752271 19961118; US 96758734 19961118; US 96751209 19961118; US
   96751661 19961118; US 96752236 19961118; US 96752487 19961118; US
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   96751922 19961118; US 96751961 19961118
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
 IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL
 PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW
 SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE
  IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 168195
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8/3/5 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

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00418748
            **Image available**
SYSTEMS AND METHODS FOR SECURE TRANSACTION MANAGEMENT AND ELECTRONIC RIGHTS
    PROTECTION
SYSTEMES ET PROCEDES DE GESTION DE TRANSACTIONS SECURISEES ET DE PROTECTION
    DE DROITS ELECTRONIQUES
Patent Applicant/Assignee:
  INTERTRUST TECHNOLOGIES CORP,
Inventor(s):
  GINTER Karl L.
  SHEAR Victor H,
  SIBERT W Olin,
  SPAHN Francis J,
  VAN WIE David M,
Patent and Priority Information (Country, Number, Date):
                        WO 9809209 Al 19980305
  Patent:
  Application:
                        WO 97US15243 19970829
                                               (PCT/WO US9715243)
  Priority Application: US 96706206 19960830
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
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  PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD
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Publication Language: English
Fulltext Word Count: 195626
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             DER OR CARRIER) AND (BILLING)
S2
          190
                SERVER AND S1
s3
          152
                S2 AND COST
S4
           73
                (ACTIVAT????) AND S3
$5
         5051
                (ACTIVAT????) (5N) ACCOUNT
S6
           12
                S5 AND S2
s7
           12
                RD S6 (unique items)
           5
                S7 AND PD<20001101
S8
?
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(Item 1 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00554430
            **Image available**
METHOD AND SYSTEM FOR PROVIDING A GLOBAL SATELLITE BASED TELECOMMUNICATION
    NETWORK
PROCEDE ET SYSTEME D'ELABORATION D'UN RESEAU MONDIAL DE TELECOMMUNICATIONS
    PAR SATELLITES
Patent Applicant/Assignee:
  IRIDIUM IP LLC,
Inventor(s):
  SMITH Robert Kyle,
Patent and Priority Information (Country, Number, Date):
                        WO 200017803 Al 20000330 (WO 0017803)
  Patent:
                        WO 99US21242 19990922 (PCT/WO US9921242)
  Application:
  Priority Application: US 98101427 19980922
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB
  GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
  MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG
  UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ
  TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI
  CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 18800
Patent and Priority Information (Country, Number, Date):
  Patent:
                        ...20000330
Fulltext Availability:
  Detailed Description
. Claims
English Abstract
  ...system (420) which includes service activation, Tier II customer
  support, payment and settlement processing, service provider
  management, usage collection, and retail rating, and a business support
  system (430) which includes gateway relationship management, financial
  and treasury and usage collection. Billing files and reports are
  distributed to a plurality of destinations.
Detailed Description
... system as a whole. It includes Iridiw-n Business System, Gateway
  Business System, and Service Provider Business System.
  "Button" stands for a push button with a text label. When clicked, it...
```

Bill Exchange Roamer. The format for 1 5 records exchanged between cellular carriers to support billing of roaming subscribers.

"CSR" stands for Customer Service Representative. A person responsible for answering subscriber...

... no activation or customer service ftmctions.

May provide limited support for activation. Generally contacts Service

Provider or Gateway for service.

"Drop-down menu" stands for a menu used to navigate from...

...to the IIU for provisioning.

"IMSI Replacement" refers to a scenario in which a Service **Provider** 's existing system will not accept call records which include the Iridium IMSI. In this case it is necessary for the Service **Provider** to use its own IMSI, called a **Carrier** IMSI, to identify the Iridium subscriber in its existing system. This Service **Provider** will transfer these **Carrier** IMSIs to the GBS, where they will be associated with Iridium SIMs and IMSIs. During provisioning of Iridium telephony service, the **Carrier** WS1 will be displayed to the Service **Provider** based on the hidium SIM entered.

"IS-41 " stands for Interim Standard 4 1.

"IS...Number" stands for the equipment identification for the subscriber's Subscriber Identification Module Card.

"Service **Provider**" is the organization or entity licensed Iridium. LLC to provide service in a geographical area...

... of need for SPNet users.

gateways 1 1...

"Subscriber" means the Person who enters an agreement with Service **Provider** for the right to access and use the Iridium Services.

"TRC" stands for Terrestrial Radio...own systems. SB S 41 0 fimctions include pre-sales support, service negotiation, general and billing inquiries, payment remittance, pricing and invoicing, receivables management, and account profile maintenance. The functioning of...

...the GBS 420 includes service activation, Tier 11 customer support, payment and settlement processing, service provider management, usage collection, and retail rating. These functions are performed in the

- ...the network 1 00, a record of the call event, called a Call Detail Record (CDR) is created in the gateway I 1 0 in the Operations Maintenance ControllerGateway 502 (OMC...
- ...records could be in any number of formats, such as Siemens D900 (13900), Cellular Intercarrier **Billing** Exchange Roamer (CIBER), Transfer Account Protocol (TAP), and Modular Voice Processing (MVP). The D900 files...
- ...the MVP files contain messaging records; and the CIBER and TAP files contain roaming partner billing exchange records. The OMC-G 502 notifies the BSS 430 when files containing CDRs in...the Rating Process applies the appropriate pricing model, pricing adjustments, and taxes to determine total charges. The total call revenue is allocated between all entities (service providers, gateway operators, roaming partners, government agencies, etc...
- ...a portion of the total call revenue. The outputs of the Rating Process are rated call events and rated product charge files which are sent to the Call Conversion Process.

The Call Conversion Process of the present invention, via step 640, prepares rated call events sent from...

- ...that do not contain errors are converted to different types of event records, such as **Billing** Event Records (BER), Settlement Event Records (SER), Net Settlement Event Records (NSER), and Outcollect Settlement...
- ... subscriber. SERs are sent to all gateways 1 10 involved in the handling of the call, excluding the home gateway.

NSERs contain a summary of all **charge** information associated with a particular **call**.

NSERs are sent to the Tier I Settlements Repository 512. OSERs contain call activity and charge inforination for calls in which the customer of a roaming partner is the chargeable party...

- ...are distributed to a gateway 1 1 0 involved in handling a portion of a call in which a roaming, non-system customer is the chargeable party. The TAP and CIBER files converted from the original OSER files are then distributed...
- ...Conversion, and Settlements Processes are disclosed, respectively, co-pending U.S. Patent Applications entitled, "A Billing Records Collection Process for a Business System for a Global Telecommunications Network,"

 Serial No. (
 -), filed...Usage Inquiry application allows Clearinghouse personnel to view original D900, CIBER, TAP, and NIVP records, charge information associated with a particular call, or product charge information.

The Error Administration application allows Clearinghouse personnel to track and troubleshoot records that have...

- ...BSS 430 are collected by the GBS 420. These files are then processed by the **Billing** System and Control System 518 (BSCS). The BSCS 518 first converts the BER and SER...
- ...124 (IS 124). With files in this format, the BSCS 518 performs wholesale and retail billing. Conversion of the files into the DMH format before billing allows the billing to be done more easily. This billing process rates the call events, taking into account the countries involved in the call, the...
- ...these countries, and the languages of these countries. The result of the wholesale and retail billing performed by the BSCS 518 is files in the TAP format. The billings for direct network customers 532 (retail billing) are forwarded to the DOC I process 520, which creates invoices which are then sent to the customers. For the billings for service providers 530 (wholesale billing), some service providers require billings in the TAP formats while others require them in the...
- ...are then sent to the service providers of the SBS 41 0. In addition to billing, the BSCS 518 also performs Tier 11 Settlement where the appropriate settlement reports are send...

...have hardware and software specifically designed to work with the network 100.

When a service **provider** of the SB S 41 0 sells network services to a customer, the service **provider** may **activate** that customer's **account** through the Service **Provider** Net 1 5 (SPNet) system 524. The SPNet 524 is a personal computer with software...

...access an account software, called QA Partner, and enter all the information required for the activation of the customer's account. The QAPartner then sends the information to the BSCS 518. The SPNet 524 may also...4. The subscriber receives the message at this pager.

Paging Service Bureau or Paging Service **Provider**1 . The caller dials a Service **Provider** or a Paging Service Bureau through existing origination methods currently defined by either entity.

2...service session and ends the call.

Operator Assisted Registration
The subscriber can call the Service Provider's customer service
number to get assistance in setting or changing the MDA locations. In
this instance, the Service Provider would dial into the subscriber
service session using the subscriber's PIN and password and set the MDA.
This assistance is available at the discretion of the service
provider for instances where the subscriber does not have DTMF
access.

Value Added Services Value-added...

. 6.

...a voice mail notification sent to the subscriber's pager.

At their discretion, the service **provider** may also offer any of the alphanumeric message origination methods described in the Alphanumeric Paging...countries can continue as in the following example.

I US-Entire Country (reserved for future billing implementation) 1 1 US-Northeast US-Southeast US-Midwest etc.

A list of initial MDAs...

- ...of MDAs to be distributed initially with additional MDAs following at later date. Usage based **billing** capabilities will also be factored into this MDA growth plan to allow Iridium. the best...includes
 - -Redundant-48Vdc Power Supplies
 - -Redundant System Disks
 - -Redundant Voice Disks

MOC Peripheral Cabine

- -Terminal Server and Modem Bank
- -Modern Card Package
- -48 Vdc Hub
- -Redundant -48Vdc Power Supplies

The MOC...configuration in a typical embodiment comprises the following. \cdots

NC Cabinet.

- -HP9000 K2 1 0-T **Server**, running HP UNIX -HP Telecommunications Disk System (A and B) -2 GB Fwd SCSI-2...
- ... Mobile Terminated.

The SMS-C stores SMS messages for delivery to the Mobile or Service provider.

It controls the interface, scheduling and delivery of messages. The ${\sf SMS-C}$ confirms .

delivery of...to support multiple emergency calling numbers (e.g.9 police, ambulance, maritime),

an Iridiurn Service **Provider** may provide up to five additional Emergency Calling Codes (each number may be up to...call, it can be determined whether a call to a particular LAC can proceed. The **billing** and tariff information for the country of the destination LAC can also be determined. Thus...to determining if a particular call can be placed to a particular LAC, and determining **billing** information.

Thus, the geometry of the network 100 has been correlated to geography. Because this...

- ...operations data network (ODN) 804. The ODN 804 is also coupled to a central Internet server 802. The central Internet server 802 is coupled with the Internet 808 via Internet service provider 8 1 0. In a preferred embodiment, the central Internet server 802 is coupled with a service platform 806.

 Note that in a current implementation, the...
- ...access. Also in the current implementation, the MOCs 330 are coupled with the central Internet server 802 only through the ODN 804. However, in a preferred embodiment, the MOCs 330 are coupled with the central Internet server 802 both through the ODN 804 and the Internet 808. Also in a current implementation, the central Internet server 702 is not provided. Instead, messages received at a central location, where the central Internet server 702 might reside, are routed via the ODN 804.

Messages may originate from a user coupled with the central Internet server 802 through the Internet 808. For example, an individual using the computer 814 coupled with...

- ...Internet 808. The messages are addressed to users of the network 100. The central Internet server 802 receives messages for users of the network 100 from the Internet 808, via step...
- ...step 91 0 includes receiving the messages at a centralized location not including the Internet server 802. Thus, the central Internet server 802 or central location provides a uniform point of access for individuals desiring to send...

....sent and the appellation "IRIDIUM.com".

Once the messages are received at the central Internet server 802, the messages are sent to the Home Gateway of the users to whom the...

...920.

ا برا سند .

In a preferred embodiment, step 920 routes the each message from the central Internet server 804 to the MOC 330 in the Home Gateway of the user to whom the...has arrived. The user may then access the message through another mechanism.

Because a centralized **server** receives the messages, a uniform access point is provided for messages received from the Internet. Because some of the Internet related functions are provided by the central Internet **server** 802, the MOCs 330 need not contain significant additional architecture designed for Internet use. In...

...provided to a user of the network I 00 may be based on the Internet server 802, rather than on the specifics of each gateway I 1 0. Thus, uniform service...The service areas may also correspond to MSCids. In such a case, a cellular service provider determines a position where the service provider is located. The service area for the MSCid around this position is then defined. Note...

Claim

- I A method for **billing** call events in a global telecommunications network, comprising sequentially the steps of. (a) collecting a plurality of **billing** files records from a plurality of sources in a global telecommunications network;
- (b) matching at least two of a plurality of call event records in the plurality of

billing files if they relate to a same call event;

- (c) rating the plurality of call event records;
- (d) converting the plurality of call event records;
- (e) settling the plurality of **billing** files, wherein one or more reports are

created based upon the plurality of call event records; and .

- (f) distributing the plurality of **billing** files and the reports to a plurality of destinations.
- 2 The method of claim 1...
- ... 1, wherein the collecting step (a) comprises the steps of
 - (al) collecting the plurality of billing files;
 - (a2) validating the plurality of billing files;
 - (0) converting a plurality of call detail records in the plurality of billing files

into a standard format; and

- (a4) checking for duplicate call detail records for at least a portion of the plurality of **billing** files.
- 4 The method of claim 3, wherein the plurality of call event records are \dots
- ...from a plurality of files, the plurality of files comprising Siemens D900 files, Cellular Intercarrier Billing Exchange Roamer files,

Transfer Account Protocol files, Modular Voice Processing files, and subscriber/customer status...

... Maintenance ControllerGateway of the network.

- 6 The method of claim 4, wherein the Cellular Intercarrier Billing Exchange Roamer files and the Transfer Account Protocol files are collected from a plurality of...
- ...a4i) checking at least a portion of the plurality of call detail records against previous **billing** records sent from the same network entity.

 11 The method of claim 1, wherein the...
- ...of call detail records according the appropriate pricing model for each of the plurality of call event records; and (c5) determining charges and allocations for the plurality of rated call detail records.
 - 15 The method of claim 14, wherein the converting step (c2) comprises: (c2i...
- ...The method of claim 14, where in the rating step (c4) comprises:
 (c4i) determining a **charge** type for each of the plurality of **call** detail records; (c4ii) applying a base rate to each of the
 plurality of call detail...1, wherein the settling step (e) comprises the
 steps of
 - (el) receiving a plurality of billing files from a converting
 process;
 - (e2) translating the plurality of **billing** files into a plurality of extract files; (e3) creating a plurality of reports from the...
- ...translating step (e2) comprises:
 - (e2i) creating a plurality of extract records from the plurality of billing files;
 - (e2ii) aggregating the plurality of extract records based on type; and (e2iii) creating a...
- ...1, wherein the distributing step (O comprises the steps of(fl) receiving a plurality of billing files and one or more reports from a
 - settlement process;
 - (f2) grouping the plurality of **billing** files and the reports according to
 - destination and type; and
 - (0) distributing each of the plurality of **billing** files and the reports to its destination.
 - 37 The method of claim 36, wherein the grouping step (f2) comprises: (M) examining a first field in each of the plurality of billing files and each of the reports, the first field pertaining to the destination of the billing file or report; and (f2ii) examining a second field in each of the plurality of billing files and each of the reports, the second field pertaining to the type of billing file or report.
 - 38 The method of claim 37, wherein the first field is a...
- ...industry clearinghouses.

41 The method of claim 36, further comprising:

(A) copying the plurality of **billing** files for storage in an archive.

```
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00456834
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A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SWITCHED TELEPHONY
   COMMUNICATION
SYSTEME PROCEDE ET ARTICLE CONCU POUR LES COMMUNICATIONS TELEPHONIQUES PAR
   RESEAU COMMUTE
Patent Applicant/Assignee:
 MCI WORLDCOM INC,
Inventor(s):
 ZEY David A,
Patent and Priority Information (Country, Number, Date):
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 Patent:
                       WO 98US7927 19980415 (PCT/WO US9807927)
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 Priority Application: US 97835789 19970415; US 97834320 19970415
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU
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(Item 2 from file: 349)

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     >>> of new databases, price changes, etc.
FTXTCOR is set ON as an alias for 15, 9, 810, 275, 476, 610, 275, 476, 624, 636,
621, 613, 813, 16, 160, 634, 148, 20.
NFTXTCOR is set ON as an alias for 77, 35, 583, 65, 2, 233, 474, 475, 99,
348,349,347.
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*** DIALOG HOMEBASE(SM) Main Menu ***

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- Database, Rates, & Command Descriptions
 Help in Choosing Databases for Your Topic
- 4. Customer Services (telephone assistance, training, seminars, etc.)
- 5. Product Descriptions

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